

DESCRIPTIONS OF HITHERTO UNDESCRIBED AUSTRALIAN LEPIDOPTERA (RHOPALOCERA)  
PRINCIPALLY LYCÆNIDÆ.

By W. H. MISKIN, F.E.S.

Fam. NYMPHALIDÆ, Swain.

Subfam. SATYRINÆ, Bates.

Genus MYCALESIS, Hub.

M. MODESTUS, n.sp.

♂. UPPERSIDE.—Uniform smoky-brown.

UNDERSIDE.—Basal and central areas as above rather lighter ; a light grey line transversely across both wings parallel with outer margin about one third therefrom ; from line to outer margin lilac-grey ; about centre of outer area a transverse row across both wings of small ocelli, black with white centres ringed with light brown ; submarginal double crenulated dark brown line through both wings ; marginal line of black.

♀. UPPERSIDE.—Rather lighter than in ♂ ; outer third of primaries somewhat lighter ; a single ocellus a little below middle near outer margin of primaries ; marginal line in secondaries as in ♂, and a faint indication of two or three almost obsolete ocelli towards anal angle.

UNDERSIDE.—Basal and central areas greyish-brown ; outer third silvery-grey ; otherwise as in ♂, except that ocelli and marginal lines are less developed. Abdomen and thorax, above black, beneath grey.

Ex. ♂  $1\frac{9}{12}$  in. ; ♀ 2 in.

*Hab.*—Cooktown (N. Queensland). Coll. Miskin. This species is near to *infuscata* (Macleay).

## Fam. LYCÆNIDÆ, Steph.

Genus LUCIA, Swain.

L. LUCANUS, F.

(*Hesp. L.*) Ent. Syst. III. 1, p. 322, n. 221 (1793); *Don.* (*Pap. L.*) Ins. India, t. 43, f. 4 (1800); *Butler* (*Zeritis L.*) B.M. Cat. Fab. Lep. p. 178 (1869); *L. limbaria*, *Swainson* (*nec Blanchard*) Zool. Ill. Ins. II. t. 135 (1833); *Chrysophanus discifer*, *Herr.-Schff.* Stett. Ent. Zeit. p. 72, n. 21, t. 4, f. 21 (1869); *Ex. Schmett.* II. f. 123 (1869); *Semper* (*Zer. D.*) Mus. Godf. XIV. Lep. p. 18 (1878); *Tepper* (*Lyc. D.*) Trans. Roy. Soc. S. Aust. Vol. IV. p. 29, t. 11, f. 14-15 (1882).

As there appears some confusion with respect to this very common species, and the descriptions already published are very incomplete, I give the above synonymy, and append a full description of both sexes. *Swainson's* figure, and *Herrich-Schäffer's* figure in *Ex. Schmett.*, (I have not seen his figure and description in *Stett. Ent. Zeit.*), both represent the ♂. *Rosenstock* (*Ann. N. Hist.* (5), Vol. XVI. p. 377, 1885) describing *L. pyrodiscus*—which latter appears to me to be = *Chrysophanus aurifer*—refers to *limbaria* (*Swains.*) in error, evidently meaning *limbaria* of *Blanchard*, a different insect, which is = *aurifer* of same author—a *Chrysophanus*.

♂. UPPERSIDE.—*Primaries* reddish-brown, with the whole of discal area nearly touching hindmargin and base shining orange; short transverse band of brown at end of cell. *Secondaries* uniform reddish-brown. Fringe of both wings alternately brown and white.

UNDERSIDE.—*Primaries* grey-brown, with darker brown short transverse bands and spots margined with white; discal area ochreous-orange; three short bands within cell, one near base, one at termination, and one midway; a spot below the central band; a transverse somewhat curved row of five short bands or spots from costa, near apex, towards hinder margin but not reaching it; an almost obsolete submarginal row of spots. *Secondaries* grey-brown with darker brown spots generally margined with white, arranged in transverse rows.

♀. UPPERSIDE.—As in ♂, but the brown of more sordid hue and but a very small discal patch of clouded yellow in primaries.

UNDERSIDE.—As in ♂, but all the markings more distinctly defined. Fringes as in ♂. Thorax and abdomen, above dark brown, beneath light grey.

Exp. ♂ 27 mm.; ♀ 28 mm.

This species has a wide range, being found as far north as Rockhampton and round to Adelaide.

#### Genus CHRYSOPHANUS, Hub.

##### C. AURIFER, Blanch.

(*Thecla A.*) Voy. Pôle Sud. t. 3, f. 13-14 (1853); *T. limbaria*, Blanch. l.c. texte p. 400, (1853); *Chenu*, (*Thecla A.*), Enc. d'Hist. Nat. Pap. p. 280, f. 489 (1869); *Butler* (*Lyc. A.*), Trans. Ent. Soc. p. 10 (1875); *Semp.* (*Chry. A.*), Mus. Godff. XIV. Lep. p. 18 (1878); *L. pyrodiscus*, Rosen. Ann. Nat. H. (5), XVI. p. 377 (1885); *Newm.* ♂ MS. in Brit. Mus.

This species has become so confounded with *L. Lucanus* that it has seemed to me desirable to give a note of the synonymy; and as it is very imperfectly described, a full description of both sexes will avoid future confusion.

♂. UPPERSIDE.—*Primaries* widely margined on all sides with dark brown, outer margin widest; discal area triangularly, not

quite touching base and not encroaching within cell, fiery metallic copper. *Secondaries*, the same, but with the coppery discal area less extensive; a submarginal outer row of faint blue specks, rather larger at anal angle; extreme abdominal margin paler brown; anal angle produced into a short blunt tail; fringe dirty white, of tail reddish-brown.

UNDERSIDE.—Light shining brown, with bands, lines, and specks of lilac-brown. *Primaries* with a speck within the cell at base, a narrow transverse band at middle of cell and another similar one just below this, a similar one at end of cell; a speck immediately above and another below cell, about midway between central and end bands; a wider transverse curved waved band between end of cell and outer margin from costa not quite reaching hind margin, where it is terminated by a single spot; a submarginal row of specks; a large pale yellowish discal patch towards hinder angle. *Secondaries*: a subbasal transverse row of four spots; another row of same number, followed by a widish irregular band; a submarginal double line.

♀.—As in ♂, but with the discal patch in primaries larger paler in colour, not reaching so near to base, but quite touching hind margin, rather ovate in form. *Secondaries* with the copper patch nearly round, small, and near to outer margin; the black outer margin penetrating the copper patch in sharp points; submarginal row of blue specks more developed than in ♂.

UNDERSIDE.—Generally paler in colour than in ♂, all the markings much less distinct; the discal yellow in primaries much more diffused. Contour of both wings in outer margin considerably convex. No tail. Thorax and abdomen, above black, beneath light brown.

Exp. 30 mm.

This species does not seem to extend into Queensland, where it is replaced by an allied species described further on. I have records of it from Newcastle (N.S.W.), Victoria, S. Australia, and Tasmania.

C. *ÆNEA*, n.sp.

♂. UPPERSIDE.—*Primaries* with the costa from the base, increasing in width towards apex and half filling cell, dark purplish-brown; apical region and outer margin very widely occupying nearly a third of wing, the same; rest of wing quite to base and hindmargin, shining golden copper. *Secondaries*: costal and apical area dull brown, rest of wing clouded coppery, with an outer narrow marginal brown border; extreme abdominal border pale brown; anal angle caudate.

UNDERSIDE.—Fine light reddish-brown, with dark brown markings. *Primaries*: a spot near base within cell, and another immediately below this; a double spot about centre of cell, immediately below which are two others transversely; a double spot at end of cell, and two indistinct ones below, and one above; beyond this a transverse row of five heart-shaped spots forming an irregular band; a submarginal rather indistinct broken line. *Secondaries*: a basal row of three spots; a spot about centre of cell, and one immediately above this; a transverse row of marks, sometimes forming spots, sometimes parallel white lines, in an irregular manner, about the middle; beyond this three irregular parallel waved lines, the last submarginal; a marginal irregular indistinct line of ochreous-red, most distinct at tail.

♀. UPPERSIDE.—*Primaries* very much as in ♂, but the coppery discal area not shining, the outer edge of it rounded, corresponding with contour of wing, which is considerably convex; the outer dark margin extending also further along hindmargin. *Secondaries* with the costal and apical brown area extending more into wing; with the anal outer area dull reddish-yellow, extending quite to margin and for about one-third into wing, where it is continued to base only along the nervures, the spaces between being reddish-brown; extreme abdominal margin pale brown; a marginal black line; at anal angle just above line between nervules two black crescent-shaped marks; outer contour extremely convex.

UNDERSIDE.—Light yellowish-brown, with marks as in ♂, but rather less distinct; an orange tinge in disc of primaries. Thorax and abdomen, above black, beneath light grey.

Exp. ♂ 31 mm. ; ♀ 38 mm.

*Hab.*—Queensland. Coll. Miskin.

This species is well distinguished from *aurifer* by the wholly different position of the coppery areas in all the wings. It appears to be entirely confined to Queensland; I have a specimen from as far north as Bowen.

Genus DANIS, F.

D. SYRIUS, n.sp.

♂. UPPERSIDE.—*Primaries* light greyish-blue; costal and outer borders narrowly margined with black; an elongate discal patch of white, from below cell to hinder margin. *Secondaries*: base grey-blue; central portion of wing from border to border transversely broadly white; beyond this greyish-blue; outer border black, narrowly from apex, but increasing in width to anal angle.

UNDERSIDE.—*Primaries*: costal and outer border broadly black, rest of wing white; a blue-grey band within the black from base, where it is widest, curved at apex, then very narrowly towards but not reaching hinder angle. *Secondaries*: basal band of greyish-blue, then a band of black, centre of wing transversely broadly white; outer margin broadly black, within which is a band of greyish-blue, containing a row of black spots placed between the nervules. Fringe of both wings, white alternated with spots of black at termination of nervules. Thorax and abdomen, above light greyish-blue, beneath silvery grey.

♀.—As in ♂ except that the blue is much less pronounced, the upper side being almost black. Thorax and abdomen, above black with slight blue tint, beneath light grey.

Exp. ♂ 45 mm. ; ♀ 47 mm.

*Hab.*—N. Queensland. Coll. Miskin.

This is near to *Sebae*, and the markings are very similar to that species, but the decidedly different tint of blue, the absence of metallic sheen, and the somewhat larger size seem to sufficiently distinguish it.

Genus *LYCÆNA*, F.*L. LINEATA*, Murray.

♀. Trans. Ent. Soc. L. p. 524, t. x. f. 9 (1874).

♂. **UPPERSIDE.**—Pale slaty-blue, with whitish silky surface produced by lengthy pubescence; costal margin of primaries and outer margin of both wings narrowly brown.

**UNDERSIDE.**—Dark brown, the double parallel transverse white lines rather faintly developed; otherwise as described in ♀, except for the discal white patch on primaries. Thorax and abdomen, above black, beneath dark brown.

Exp. 25 mm.

This is questionably distinct from *Palmyra*, Feld. The ♂ seems to have been hitherto unknown.

*L. CANESCENS*, n.sp.

**UPPERSIDE.**—Shining brown; base bluish-black.

**UNDERSIDE.**—Uniform light shining brown, finely speckled with white; a few obscure black spots barely visible sparsely distributed in an irregular manner. Thorax and abdomen, above black, beneath grey.

Exp. 26 mm.

*Hab.*—Tasmania. Coll. Miskin.

*L. MACKAYENSIS*, n.sp.

♂. **UPPERSIDE.**—Uniform lilac-blue, rather darker at base; outer marginal line of black.

**UNDERSIDE.**—Pale brown, with transverse bands of slightly darker colour, bordered faintly with whitish, but all very obscure.

*Primaries* with a subbasal band crossing wing ; a short one at end of cell ; one irregularly curved between this and outer border ; a submarginal row of crescent-shaped marks. *Secondaries* with three bands traversing wing at about equal distances ; submarginal rows of lunular markings ; two black spots with metallic green centres at anal angle. Thorax and abdomen, above black, beneath grey.

Exp. 16 mm.

*Hab.*—Mackay. Coll. Miskin.

This little species approaches nearest to *biocellata* (Feld.), but is a smaller insect and differs very considerably in the markings of underside.

L. NIGRA, n.sp.

♀. UPPERSIDE.—Black ; with discal, somewhat oval, patch of pure white below cell and reaching hinder margin in primaries ; and in secondaries reaching from centre of cell to costal margin where it meets the patch of primaries.

UNDERSIDE.—Silvery-white. *Primaries* with costal and outer borders margined with light grey-brown ; three dark brown marginal spots touching above costal vein, the last being at extremity of that vein and fainter in colour ; a small light brown spot about middle of cell ; a light brown transverse line at end of cell ; a transverse waved line between end of cell and outer margin ; a submarginal row of lunular white marks not reaching to apex. *Secondaries* with a transverse row of three black spots equidistant, a short distance from base ; another spot upon abdominal margin about half way ; another larger one at extreme apex ; a faint transverse brown line at end of cell ; a transverse broken light brown line beyond cell nearer to outer margin ; outer margin light brown, within it a submarginal row of white crescents between the nervules ; a small black spot at anal angle, and a larger one between 2nd and 3rd median branches ; marginal line light brown. Thorax and abdomen, above black, beneath grey.

Exp. 23 mm.

*Hab.*—Cardwell. Coll. Miskin.



## L. GRACILIS, n.sp.

♂. UPPERSIDE.—Uniform light brown. *Primaries* with a slight violet reflection in hinder area. *Secondaries* with the anal area shot with purplish-blue in some specimens.

UNDERSIDE.—Dull silvery-grey without markings except for a very faint outer submarginal line in primaries; in secondaries a large black spot at border between 2nd and 3rd median branches, another almost obsolete in space next above, other barely discernible ones continued to apical angle.

♀. UPPERSIDE.—Dull purple, with indistinct outer marginal bands of brown. In other respects as in ♂. Thorax above black, abdomen brown; beneath both silvery-grey.

Exp. ♂ 20 mm. ; ♀ 22 mm.

*Hab.*—Brisbane to Cooktown. Coll. Miskin.

This species is most nearly allied to *pygmaea* (Snell), than which it is somewhat larger.

Dr. Lucas has given a description of this species, appearing in the Proceedings Royal Soc. of Queensland, p. 159 (1889), under the name of *exilis*, but as this name is already preoccupied by an American species of the genus (*Bois. Ann. Soc. Ent. Fr. p. 195, 1852*) it must of course be discarded. I have added description, as the one before referred to is not quite intelligible, and the figures accompanying are worse than useless.

## L. SULPITIUS, n.sp.

UPPERSIDE.—Dull dark brown.

UNDERSIDE.—Light brown, with double parallel lines of wide silvery-white, forming transverse bands. *Primaries*: a basal one across wing; a short one at end of cell; a somewhat curved broken one traversing wing between end of cell and outer border, a submarginal white curved line; a marginal line of brown.

*Secondaries* with a short basal band ; another crossing wing at end of cell, from border to border ; another between the last and outer border, this one increasing in width considerably at middle, its outer line not reaching costal margin ; marginal line black ; two black spots at anal angle, the upper one with a slight crown of red. Fringe brown ; abdomen and thorax, above dark brown, beneath grey.

Exp. 21 mm.

*Hab.*—Rockhampton. Coll. Miskin.

This species is near *serpentata* (H.-S.).

L. MATHEWI, n.sp.

UPPERSIDE.—Shining dark brown.

UNDERSIDE.—Soft light yellowish-brown ; the transverse bands formed by longitudinally elongate independent spots very faintly margined with white, depicted in dark brown. *Primaries* with a short basal one within cell, and another less distinct below, touching hinder margin ; another short one at end of cell ; another just beyond cell touching both borders ; a submarginal faint waving line : a marginal line of dark brown. *Secondaries* : a subbasal spot near costa ; a row across wing through middle of cell ; a short one at end of cell ; a curved one beyond and touching the last, from border to border ; beyond this a band of white, bordered by a waved brown line, a short distance from border ; a black speck at anal angle, and one or two black crescents upwards along the border, with a slight presence of red above. Fringe inconspicuous light spotted with darker.

Exp. 21 mm.

*Hab.*—Sydney. Coll. Miskin.

L. HOBARTENSIS, n.sp.

UPPERSIDE.—Shining dark brown ; fringe broad and distinct white alternated at end of nervules with brown.

UNDERSIDE.—*Primaries*: light greyish-brown; the bands of darker brown edged with white; one short one in centre of cell; another short one at end of cell; one complete one beyond cell; a submarginal brown line. *Secondaries*: greyish-brown, the bands and spots very dark brown; a basal spot near costa; a subbasal transverse row of three spots; a short disco-cellular band; a transverse band beyond, but touching the last, considerably elbowed at middle outwardly; a submarginal row of brown spots, crowned with lunules of darker brown; outer area lighter coloured than basal portion. Thorax and abdomen, above dark brown, beneath grey.

Exp. 18 mm.

*Hab.*—Hobart (Tasmania). Coll. Miskin.

This little species is closely allied to the last-described, but the markings on underside of secondaries are somewhat differently arranged; they both approach in some degree to *agricola* (D. & H.)

For both this and the previous species I am indebted to Mr. Gervase F. Mathew; they have been in my collection for a considerable time unnamed, and as they are irreconcilable with any published descriptions I have now determined to claim on their behalf specific rank.

Genus LYCÆNESTHES, Moore.

L. TURNERI, n.sp.

♂. UPPERSIDE.—Uniform dark violet.

UNDERSIDE.—Very pale shining brown, with the usual silvery-white parallel broken lines, forming transverse bands. *Primaries*: a short one at end of cell; another beyond, from costa not quite reaching hinder margin; a submarginal one indistinct. *Secondaries*: one near base across wing; a short one at end of cell; beyond this another from border to border; a submarginal one, lunulate; between 2nd and 3rd median branches a black spot crowned with orange-red on border; marginal fine black line.

♀. UPPERSIDE.—*Primaries*: basal and discal areas to hinder margin, light violet; costal margin not widely and outer margin widely, black; a round spot of white just outside of and below end of cell. *Secondaries*: light violet, with the outer margin black, within which latter is a submarginal row of violet lunular marks, then a faint violet line, the extreme margin narrowly black.

UNDERSIDE.—As in ♂, except that in primaries the discal area but for the bands is white; abdominal margin light brown. Caudal fascicles three, instead of two as in ♂. Thorax and abdomen, above bluish-black, beneath light grey.

Exp. ♂ 30 mm.; ♀ 25 mm.

*Hab.*—Cape York, Cardwell, Mackay. Coll. Miskin.

I have named this species after Mr. Rowland E. Turner of Mackay, who has been good enough to present me with a specimen of each sex from his locality, my previous specimens being in poor condition.

#### L. TASMANICUS, n.sp.

♂. UPPERSIDE.—Uniform lilac-blue. *Primaries* with the apex narrowly margined with black. *Secondaries* with two small submarginal patches of black at anal angle.

UNDERSIDE.—Light sienna-brown, with transverse bands of dark reddish-brown, edged on each side with white; base of both wings dark brown. *Primaries* with a subbasal band, not extending quite to hinder margin; a short band at end of cell; between this and outer margin another, irregular in form across wing; a waved submarginal narrow indistinct one; a whitish margin, and a faint marginal line of brown. *Secondaries*: a subbasal band coalescing with brown of base; a central wide very irregular one; a submarginal waved brown line; a white margin and a marginal brown line; two black spots with metallic green centres at anal angle. Fringe white interrupted with brown spots. Thorax and abdomen, dark brown above and beneath.

Exp. 30 mm.

*Hab.*—Tasmania. Coll. Miskin.

## Genus HOLOCHILA, Feld.

## H. ANDRODUS, n.sp.

♂. UPPERSIDE.—Light greenish-blue; fine marginal line of black.

UNDERSIDE.—Silvery snow-white; three marginal very small black specks, from anal angle outwards.

♀. UPPERSIDE.—Dull black, with a very slight indication of blue at base; discal area circularly white, not touching hinder margin in primaries. *Secondaries* with a round white patch at apical region, extending in a point somewhat towards base; with five black marginal points on underside of secondaries. Thorax and abdomen, above black, beneath white.

Exp. 32 mm.

*Hab.*—Cape York, Cooktown. Coll. Miskin.

Nearly allied to *absimilis* (Feld.).

## Genus IALMENUS, Hub.

## I. ITONUS, n.sp.

♂. UPPERSIDE.—Dark brown; discal area metallic greenish-blue. *Primaries* with the discal metallic patch digitate on outer edge, and nearly touching hinder margin; a black short transverse band at end of cell. *Secondaries* with the metallic patch nearly touching base, and crossed near outer border by an irregular transverse dark brown line; at anal angle a black spot crowned with orange-red; between submedian and last median branch a black patch surmounted by a white line; between 2nd and 3rd submedian branches a round black spot deeply surmounted with orange-red; from this to apical angle a submarginal row of white spots; a marginal white line from anal to apical angle; abdominal margin clothed with long hairs, light brown; tail black tipped with white.

UNDERSIDE.—Silvery-grey, with transverse narrow black bands and spots, the position and form of which are almost as in *Ictinus*, and nearly as wide as in the light-banded form of that species; the submarginal band being light brown and distinct, the marginal band orange-brown as in *Evagoras*. *Secondaries* with an outer submarginal row of white spots. Thorax and abdomen, above dark brown, beneath silvery-grey.

Exp. 36 mm.

*Hab.*—Cape York. Coll. Miskin.

This species is very close to *Ictinus* (Hew.); it is distinguished from it however by the different form of the discal metallic blue area, also by the submarginal rows of white spots on secondaries above and beneath, and by the colour of the underside, as well as by the minor differences referred to in the description.

Genus AMBLYPODIA, Horsf.

A. EUPOLIS, n.sp.

♂. UPPERSIDE.—Uniform dull violet, base of abdominal margin in secondaries greyish.

UNDERSIDE.—Pale olive brown with transverse bands and spots of darker brown bordered or surrounded narrowly with whitish. *Primaries*: a spot and two short transverse bands within the cell, at equal distances from one another and from the base, the first smallest near to base, the larger at end of cell, the other intermediate in size; immediately below disco-cellular band another longitudinally, and below this towards base another short transverse one rather indistinct; beyond all these at about two-thirds a broad transverse band from costa not reaching submedian; an indistinct narrow submarginal band. *Secondaries* with a slight lilac bloom; two round spots near base transversely; a transverse curved row of four small spots across wing; a very broad irregularly edged transverse band from costa to abdominal margin, nearly straight to last median branch, then narrow and curved to margin, touching at centre a short disco-cellular band; below this last-mentioned

band towards termination of principal band are two spots; a submarginal rather indistinct band; a marginal band rather darker; a black spot at anal angle crowned with silvery-blue, from this to second median branch a border of light metallic-blue; tail tipped with black with white point.

♀. **UPPERSIDE.**—*Primaries*: shining violet, blue at base; costa brown at base narrowly to about one-third, increasing in width to apex which is widely, and outer margin less widely, dark brown. *Secondaries*: the same; apex widely, outer margin very narrowly, dark brown; abdominal margin at base light brown; anal angle broadly dark brown. Thorax and abdomen, above dark brown, beneath pale brown.

Exp. ♂ 44-48 mm.; ♀ 40-48 mm.

*Hab.*—Cape York, Cooktown, Cardwell. Coll. Miskin.

#### A. CYRONTIE, n.sp.

♂. **UPPERSIDE.**—Uniform dense purple, with slight violet reflection; costal and outer margins bordered very narrowly with black; abdominal margin of secondaries broadly light brown, and clothed with long hairs.

**UNDERSIDE.**—Exactly as in *Amytis* (Hew.). Thorax and abdomen, above dark brown, beneath yellowish-brown.

Exp. 45-53 mm.

*Hab.*—Cape York, Bowen. Coll. Miskin.

I have hitherto hesitated to describe this species on account of the strong similarity in colour and marking of underside to *Amytis*, but the colour is so different on the upperside to that species, of which latter I have collected large numbers, that I have determined after waiting for some years to see whether any intermediate links might present, to claim for it specific rank. The ♀ I have not seen. I have in my collection two specimens of the one sex, all that I have seen.